

## **City of Carmel Water Utility**

### **Approved List of Construction Materials**

1. **Water Main:** Shall be Ductile Iron Pressure Class 350.
2. **Reflective Warning Tape:** Shall be installed 18in above pipe.
3. **Tracing Wire (10 or 12 gauge):** To be installed with all water mains. There must be access to the tracer wire at each valve box, with enough wire in the valve box to insure the proper connection to the locating machine.
4. **Fire Hydrants:** Shall be Mueller (Safety Yellow, M.A.B. # 0433291, Sherwin Williams # F75YP2) (Carmel Clay Spec. hydrants shall be open right and will have a safety blue stripe around hydrant bonnet from the factory). The hydrant pumper nozzle shall be of one-piece design, compatible with 5" Storz hose coupling. The nozzle shall be an integral part of the fire hydrant and must be furnished by the manufacturer or authorized distributor designated by the manufacturer. Mueller model 290220 for casting and 290221 for cap. **Storz adapters will not be accepted.**
5. **Valves:** Shall be resilient seat gate valve, Mueller only. (Carmel Clay Spec. valves shall be open right)  
Butterfly valves shall be used for sizes over 12in.
6. **Fittings:** Shall be Union, Tyler
7. **Mechanical Joints:** Shall be made with Megalugs.
8. **Valve Boxes:** Shall be Union Tyler or East Jordan Iron Works
9. **Posi Caps or Box loks:** Shall be installed, with each gate valve. **\*\*not to be used on butterfly valves\*\***
10. **Curb Boxes:** Shall be Union, Tyler
11. **Tapping Sleeves:** Shall be Smith Blair, Romac, or JCM
12. **Repair Clamps:** Shall be full circle stainless steel with ductile lugs. Smith Blair 226, Ford F-1, JCM or Mueller equal.
13. **Tapped Repair Clamps:** (For ¾, 1in, 1 1/2 in, and 2in taps on PVC, 1 1/2in and 2in on Ductile Iron and service repairs) shall be 12in long, full circle stainless steel with ductile lugs and tapered threads. Smith Blair, Ford, JCM, Mueller.

14. **Sample Stations:** Shall be installed at the utilities request. (**GIL Industries model # EH101**).
15. **Service Lines:** 3/4in, 1in, 1 1/2in, 2in, Shall be K – Copper.
16. **Brass:** Compression Fittings. **Pack Joints not allowed**  
(See Meter Pit Specs. For Make and Model #)
17. **Joint Restraints:** Shall be Field Lock Gaskets or Mechanical Bell Joint Restraints.
18. **HDPE Sleeves:** Shall be used for services that cross major city streets.
- \*\* 3/4" & 1" lines will use 3" hdpe sleeve  
\*\* 1 1/2" & 2" lines will use 4" hdpe sleeve
19. **Additional Kickers:** Shall be solid block and brick. **No poured concrete.**